IN THE CLAIMS

Claim 1.   (currently amended)   A communication apparatus comprising:

radiocommunication means for sending data to and for receiving data from a host device via a radiocommunication network;

external communication means for connection to an external communication network outside the radiocommunication network to send data to and to receive data from the external communication network;

storage means for storing a radiocommunication protocol for use in sending and receiving data within the radiocommunication network, an external communication protocol for use in sending and receiving data to and from the external communication network, and communication setting information on the external communication network and authentication information for authenticating a user;

authenticating means for carrying out an authentication process based on the authentication information with a server connected to the external network; and

communication controlling means for controlling the external communication means by a use of the communication setting information stored in the storage means to set a connection with the external communication network according to

the external communication protocol while controlling the radiocommunication means to set a connection with the host device according to the radiocommunication protocol stored in the storage means to control the radiocommunication means and the external communication means to transfer data between the external communication network and the host device;

wherein the radiocommunication network is a short-range Bluetooth network;

wherein the host device uses the external communication means as a gateway such that the host device only uses the radiocommunication protocol and does not directly use the external communication protocol to connect to the external communication network.

Claim 2.   (previously presented)   The apparatus according to claim 1, wherein the storage means stores a mobile telephone communication protocol for use in connecting to a mobile network; and

the communication controlling means uses the mobile telephone communication protocol stored in the storage means for use in connecting to the mobile network to set a connection between the mobile network and the host device via the radiocommunication network.

Claim 3. (previously presented) The apparatus according to claim 1, wherein the storage means stores personal information corresponding to a user of the host device; and

the communication controlling means uses the communication setting information and the personal information stored in the storage means to transfer data between the host device and the external communication network.

Claim 4. (previously presented) The apparatus according to claim 1, wherein the storage means stores at least one of PPP (point to point protocol), IP (Internet protocol) and TCP (transport control protocol) as the external communication protocol; and

the communication controlling means uses at least one of the protocols stored in the storage means to set a relation of connection between the external communication means and the external communication network to control data transfer between the host device and the external communication network.

Claim 5. (currently amended) A communication method for transferring data between a host device and a communication apparatus via a radiocommunication network while transferring data between an external communication network outside the radiocommunication network and the communication apparatus, the method comprising the steps of:

setting a relation of connection between the communication apparatus and the host device according to a radiocommunication protocol held in the communication apparatus, while setting a relation of connection between the communication apparatus and the external communication network according to an external communication protocol by using communication setting information on the external communication network held in the communication apparatus;

transmitting and receiving data between the external communication network and the host device by using the relation of connection between the communication apparatus and the host device and the relation of connection between the communication apparatus and external communication network; and

carrying out an authentication process based on authentication information obtained from the communication apparatus with a server coupled to the external communication network;

wherein the radiocommunication network is a short-range Bluetooth network;

wherein the host device uses the communication apparatus as a gateway such that the host device only uses the radiocommunication protocol and does not directly use the external communication protocol to connect to the external communication network.

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Claim 6.   (previously presented)   The method according to claim 5, wherein a mobile telephone communication protocol for use in connecting to a mobile network is held in the communication apparatus; and

the mobile telephone communication protocol is used to set the relation of connection between the mobile network and host device via the radiocommunication network.

Claim 7.   (previously presented)   The method according to claim 5, further comprising the steps of:

holding personal information corresponding to a user of the host device in the communication apparatus; and

setting the relation of connection between the host device and the external communication network according to the external communication protocol by using the communication setting information and the personal information.

Claim 8.   (previously presented)   The method according to claim 5, further comprising the steps of:

holding at least one of PPP (point to point protocol), IP (Internet protocol), and TCP (transport control protocol) in the communication apparatus as the external communication protocol; and

setting a connection between the communication apparatus and the external communication network by using at least one of the protocols.

Claim 9. (currently amended) A communication apparatus operable for use with a host device and a server, said apparatus comprising:

radiocommunication means for sending data to and for receiving data from the host device via a short-range radiocommunication network;

external communication means for connection to an external communication network which is different from the radiocommunication network to send data to and to receive data from the external communication network;

storage means for storing a radiocommunication protocol for use in sending and receiving data within the radiocommunication network, an external communication protocol for use in sending and receiving data to and from the external communication network, and communication setting information for use in setting the connection to the external communication network;

communication controlling means for controlling the external communication means by use of the communication setting information stored in the storage means to set a connection with the external communication network according to the external

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communication protocol and for controlling the radiocommunication means to set a connection with the host device according to the radiocommunication protocol stored in the storage means so as to enable data to be transferred between the external communication network and the host device,

in which the host device does not have the external communication protocol and the communication setting information stored therein;

wherein the short-range radiocommunication network is a Bluetooth network and the radiocommunication protocol does not include at least one of PPP (point to point protocol), IP (Internet protocol), and TCP (transport control protocol);

wherein the host device uses the communication apparatus as a gateway such that the host device only uses the radiocommunication protocol and does not directly use the external communication protocol to connect to the server.

Claim 10.   (canceled)